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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/070,035	07/03/2002	Gilbert Wolrich	10559-306US1	9914
20985	7590	12/14/2004	EXAMINER	
FISH & RICHARDSON, PC 12390 EL CAMINO REAL SAN DIEGO, CA 92130-2081			PAN, DANIEL H	
			ART UNIT	PAPER NUMBER

2183

DATE MAILED: 12/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/070,035	Applicant(s) WOLRICH ET AL.	
	Examiner Daniel Pan	Art Unit 2183	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 February 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) _____ is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>02/26/02, 06/04/04</u> / | 6) <input type="checkbox"/> Other: _____ |

1. Claims 1-20 are presented for examination.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-20 are rejected under 35 U.S.C. 102(a) and (b) as being anticipated by Hasegawa (5,724,563).
3. As to claims 1, Hasegawa taught a branch instruction that caused an execution of instruction stream to branch to an instruction at an address [x] specified in the instruction of a state of a specified name was a specified value (see the branch instruction format in fig.2, see the value specified in the branch instruction field, see also fig.5, and fig.10, see also the implicit value Z or C encoded in opcode in Table 1, col.11, lines 41-52, see also the teaching of Z and C flags set and reset in col.11, lines 14-40, lines 54-67, col.12, lines 1-5).
4. As to claims 2,3, see the arithmetic flags set or reset in col.11, lines 19-32). As to the parallel processor, see the pipeline processor in fig.6).

5. As to claim 4, Hasegawa also included microengines (see fig.9 instruction register 8, instruction decoder 3 and execution unit 11).
 6. As to claim 6, see [Branch 3, X] in fig.5, see also the encoded branch opcode in Table 1, for example, the first entry is [Branch on not equal Z]. "Branch" being "br_inp_state", "Z" being the state name, and the X being the label, the number 3 was an optional token. Furthermore, Examiner holds that changes in instruction format would not have changed the scope of the invention.
 7. As to claim 5, Hasegawa also specified the number of instructions to execute before performing the branch (see fig.5 Branch 3, X, see also fig.10).
 8. As to claims 8,9 see branch on overflow set and branch on overflow clear in Table 1).
 9. As to claims 10,11, 12, 19,20, evaluating a value of a specified state name, and performing the branch based on specified name (see the flags set and reset in col.11, lines 14-35, see also the encoded flags in col.1, lines 42-52). As to the parallel processor, see the pipeline processor in col.5, lines 30-31).
 10. As to claim 13, Hasegawa also included a label [x] as a target field (see the target address [x] in fig.5).
- As to claims 14,15, Hasegawa also included an optional field for executing number of instructions before performing the branch (see fig.2 [23], see fig.5 Branch 3 X, see also

Art Unit: 2183

fig.10, see col.5, lines 55-67, see col.6, lines 24-32). As to the programmer set token, Hasegawa 's instruction was also programmable (see the application program in col.1, lines 42-44).

10. As to claims 16, Hasegawa also included a register stack (see fig.1 [register file]); and a arithmetic unit (not explicitly shown as ALU, but it showed arithmetic calculations in col.1, lines 20-25, col.7, lines 44-52, see the adder in col.7, lines 52-56, fig.1, see counter section 4 in col.7, lines 8-26 for the increment and decrement, and comparison of the counter, see also the calculation section 7 in col.63-67, col.8, lines 1-4, and see also the arithmetic result flags in col11, lines 25-32). See also paragraph # 8 for the feature of evaluating the specified value.

11. As to claim 17, Hasegawa did not explicitly show the additional microengine as claimed. However, Hasegawa , in the same patent, taught the parallel processor 9pipeleine processor 200] could be implemented in two kinds of hardware having respective different instructions set or use the same program code for both hardware (see col.13, lines 7-12). Therefore, additional hardware (or microengine) was implemental be in Hasegawa.

12. As to claim 18, Hasegawa also included target field [x] (see fig.5).

13. Claim 1 is also additionally rejected under "102" over Dyer et al. (5,640,538) below :

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

14. Claim 1 is rejected under 35 U.S.C. 102(a) and (b) as being anticipated by Dyer et al. (5,640,538).

15. As to claim 1, Dyer taught a branch instruction that caused an execution of instruction stream to branch to an instruction at an address [801] specified in the instruction of a state of a specified name (e.g. branch type) was a specified value (see branch type – 0,1 col.11, lines 8-10, see also the state of additional specified name in Table 1, see fig.8 for the branch instruction format).

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a) Larsen et al. (3,881,173) is cited for the background teaching of the branch on condition specified in instruction (see col.1, lines 19-45);

b) Henry et al. (6,230,261) is cited for the teaching of the branch instructions on conditions to a particular address (see col.7, lines 61-67, col.8, lines 1-3, 8, lines 64-67, col.9, lines 1-12);

Art Unit: 2183

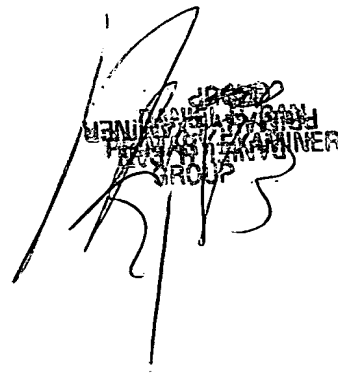
c) Dutton et al. (5,819,080) is cited for the teaching of the condition state included in the branch instruction (see col9, lines 51-65).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dan Pan whose telephone number is 703 305 9696, or the new number 571 272 4172. The examiner can normally be reached on M-F from 8:30 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chan, can be reached on 703 305 9712, or the new number 571 272 4162. The fax phone number for the organization where this application or proceeding is assigned is 703 306 5404.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

21 Century Strategic Plan



Handwritten signature and official stamp of a Patent Examiner. The stamp includes the text: "PATENT EXAMINER", "UNIT 2183", "GROUP 1", "ART UNIT 2183", "GROUP 1".